

(12) 按照专利合作条约所公布的国际申请

(19) 世界知识产权组织  
国际局



(43) 国际公布日:  
2005年5月12日(12.08.2005)

PCT

(10) 国际公布号:  
WO 2005/043815 A1

- (51) 国际分类号<sup>7</sup>: H04L 12/24
- (21) 国际申请号: PCT/CN2004/000997
- (22) 国际申请日: 2004年8月27日(27.08.2004)
- (25) 申请语言: 中文
- (26) 公布语言: 中文
- (30) 优先权:  
200310103400.7 2003年10月30日(30.10.2003) CN
- (71) 申请人(对除美国以外的所有指定国): 华为技术有限公司(HUAWEI TECHNOLOGIES CO., LTD.) [CN/CN]; 中国广东省深圳市龙岗区坂田华为总部办公楼, Guangdong 518129 (CN).
- (72) 发明人;及
- (75) 发明人/申请人(仅对美国): 杨磊(YANG, Lei) [CN/CN]; 中国广东省深圳市龙岗区坂田华为总部办公楼, Guangdong 518129 (CN).
- (74) 代理人: 北京德琦知识产权代理有限公司(DEQI INTELLECTUAL PROPERTY LAW CORPORATION); 中国北京市海淀区花园东路10号 高德大厦8层, Beijing 100083 (CN).

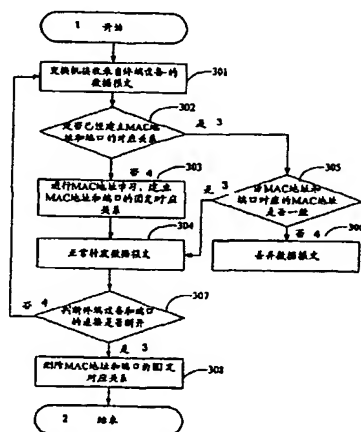
- (81) 指定国(除另有指明, 要求每一种可提供的国家保护): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KC, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
- (84) 指定国(除另有指明, 要求每一种可提供的地区保护): ARIPO(BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), 欧亚专利(AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), 欧洲专利(AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)

本国际公布:  
— 包括国际检索报告。

所引用双字母代码和其它缩写符号, 请参考刊登在每期 PCT公报期刊起始的“代码及缩写符号简要说明”。

(54) Title: A METHOD OF PREVENTING FROM ATTACKING THE ETHERNET

(54) 发明名称: 一种防止以太网攻击的方法



- 301 THE SWITCH RECEIVES THE PACKET DATA FROM THE TERMINAL DEVICE
- 302 WHETHER THE CORRESPONDING RFLATION BETWEEN THE MAC ADDRESS AND THE PORT IS SET UP
- 303 STUDY THE MAC ADDRESS SET UP THE FIXED CORRESPONDING RELATION BETWEEN THE MAC ADDRESS AND THE PORT
- 304 FORWARDING THE PACKET DATA
- 305 WHETHER ORNOT THE SOURCE ADDRESS COMPLY WITH THE CORRESPONDING MAC ADDRESS
- 306 GIVE UP THE PACKET DATA
- 307 JUDGE WHETHER OR NOT THE LINK BETWEEN THE TERMINAL DEVICE AND THE PORT IS DISCONNECTED
- 308 DELETE THE CORRESPONDING RELATION BETWEEN THE MAC ADDRESS AND THE PORT
- 1 START
- 2 END
- 3 YES
- 4 NO

(57) Abstract: This invention discloses a method of preventing from attacking the Ethernet, the method includes: after detecting the link which is set up newly between the port and the terminal at the communicating device of the Ethernet and receiving the data from the terminal, setting up and storing the fixed corresponding relation of the hardware address of the port and the terminal, and forwarding the data depending on the fixed corresponding relation; after disconnecting the link between the port and the terminal at the communicating device of the Ethernet, deleting the fixed corresponding relation stored. This invention can facilitate the maintain of the network and can reduce the cost of maintaining the network in the case of ensuring the security and the reliability of the network.

[见续页]

WO 2005/043815 A1



---

(57) 摘要

本发明公开了一种防止以太网被攻击的方法。该方法包括如下步骤：在以太网通讯设备检测到端口和终端设备的新建连接并接收到来自该终端设备的数据后，建立并保存该端口和该终端设备的硬件地址的固定对应关系，并根据该固定对应关系转发数据；在以太网通讯设备检测到端口和终端设备的连接断开后，删除所保存的固定对应关系。本发明可以在保证网络安全性和可靠性的情况下，方便网络维护并降低维护成本。